

THE WESTERN VARIETY OF MAIANTHEMUM  
CANADENSE.

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THE conventional descriptions of *Maianthemum canadense* Desf. in our manuals read: "Pubescent or glabrous"<sup>1</sup> or "Glabrous or pubescent,"<sup>2</sup> and a somewhat similar statement can be traced through the writings of various authors as far back at least as Hooker, who, writing of the plant of British America ("Newfoundland to the Rocky Mountains"), said "More or less downy or glabrous."<sup>3</sup> Prior to Hooker, however, the students of American botany, dealing chiefly with the plants of the Appalachian district, had described our plant as glabrous. Thus Pursh, who studied the plant sufficiently to distinguish two varieties based upon leaf-outline, said "foliis . . . utrinque glaberrimis"<sup>4</sup> and Torrey wrote "leaves . . . very smooth on both sides."<sup>5</sup> The latter descriptions, by botanists who knew the plants of the Appalachian region, exactly agree with the original diagnosis of *Maianthemum canadense* by Desfontaines: "foliis . . . utrinque glaberrimis,"<sup>6</sup> and they perfectly describe the plant which occurs from Labrador to North Carolina, Tennessee, Indiana, Michigan and eastern Ontario. A study of nearly two hundred collections of the plant has failed to reveal a single pubescent specimen within the area above defined; while west of Indiana, Michigan and adjacent Ontario the plant is pilose upon the stem, rhachis and leaves (at least beneath). The only exception thus far seen is glabrous material on a mixed sheet from Brown County, Wisconsin; but with this single exception all the specimens seen from western Ontario, Manitoba, Saskatchewan and Alberta, southward to South Dakota, Iowa and Illinois are pubescent. Study of the flowers has failed to reveal any differences in them and in outline the foliage of the western pubescent plant closely simulates

<sup>1</sup> Watson & Coulter in Gray, *Man.* ed. 6, 526 (1890); Robinson & Fernald in Gray, *Man.* ed. 7, 291 (1908).

<sup>2</sup> Britton in Britton & Brown, *Ill. Fl.* i. 431 (1896), ed. 2, 517 (1913) under *Unifolium canadense*.

<sup>3</sup> Hook. *Fl. Bor. Am.* ii. 176 (1839) under *Smilacina bifolia*.

<sup>4</sup> Pursh, *Fl. Am. Sept.* i, 233 (1814) under *Smilacina canadensis*.

<sup>5</sup> Torr. *Fl. No. & Mid. U. S.* i. 353 (1824) under *Convallaria bifolia*.

<sup>6</sup> Desf. *Ann. Mus. Paris*, ix. 54 (1807).

that of the eastern glabrous type; but in its pubescence the western plant is so clearly distinguishable that it is worthy separation as a geographic variety which may be called

*MAIANTHEMUM CANADENSE* Desf., var. **interius**, n. var., plus minusve pilosum.—ONTARIO: Mungo Park Point, Lake Nipigon, 1912, *H. E. Pulling*. MANITOBA: Lake Winnipeg, *Richardson*; Observation Point, Lake Winnipeg, July 23, 1884, *J. Macoun*; Winnipeg Valley, 1859, *Bourgeau*. SASKATCHEWAN: Carleton House to Cumberland House, July, 1827, *Drummond*. ALBERTA: Strathcona, June 21, 1903, *M. A. Barber*, no. 189. SOUTH DAKOTA: Piedmont and Little Elk Creek, alt. 4000 ft., June 27, 1892, *Rydberg*, no. 1043 (TYPE in Gray Herb.). IOWA: Fayette, May, 1894, *B. Fink*. WISCONSIN: Brown County, June 22, 1892, *J. H. Schuette*. ILLINOIS: Fountaindale, Winnebago County, 1870, "a rare plant with us," *M. S. Bebb*; Starved Rock, La Salle County, June, 1909, *Greenman, Lansing, & Dixon*, no. 34; Lake Villa, August 3, 1906, *Gleason & Shobe*, no. 103; Chicago, *H. A. Warne*.

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## THE NORTH AMERICAN VARIATIONS OF *ARCTOSTAPHYLOS UVA-URSI*.

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*ARCTOSTAPHYLOS UVA-URSI*, as it occurs in North America, seems to fall into three somewhat pronounced geographic variants differing primarily in the pubescence of the branches. The shrub which most clearly matches the European material has the very young branchlets minutely tomentulose and commonly somewhat viscid, but soon loses its pubescence. This typical form of the species is less common in North America than one of the others, but occurs in characteristic aspect from Greenland to Newfoundland and Quebec, and from the Bering Sea region locally southward to the Black Hills, New Mexico and Washington. This is the shrub described by Klotzsch as *Daphnidostaphylis Fendleriana* Klotzsch, *Linnaea*, xxiv. 80 (1851), and although the Fendler material is more glutinous than most of the European material, it is well matched by a sheet of specimens from the Pyrenees.